Application No. 10/547,207 Attorney Docket No. VB60033

In the Claims

Please amend the claims as follows:

1. (Original) A nucleic acid molecule encoding a MUC-1 derivative which is capable of raising an immune response in vivo, said response being capable of recognising a MUC-1 expressing tumour, wherein the nucleic acid has a RSCU value for the non-repeat region of at least 0.6 and has a level of identity of less than 85% in comparison with the MUC-1 VNTR nucleotide sequence shown in Figure 9, with respect to the corresponding non-repeat region of wild type MUC-1.

2. (Original) A nucleic acid molecule as claimed in claim 1 wherein the RSCU is at least 0.65%

 (Original) A nucleic acid molecule as claimed in claim 1 wherein the identity is less than 80%.

4. (Original) A nucleic acid molecule encoding a MUC-1 derivative as claimed in claim 1 having less than 15 perfect repeat units.

5. (Original) A nucleic acid molecule as claimed in claim 4 having no perfect repeats.

(Previously presented) A nucleic acid molecule as claimed in claim 1 of which is devoid of a signal sequence.

 (Previously presented) A nucleic acid molecule as claimed in claim 1 that encodes one or more of the sequences from the group: FLSFHISNL; NSSLEDPSTDYYQELQRDISE; and NLTISDVSV.

 (Previously presented) A nucleic acid molecule as claimed in claim 1 additionally comprising a heterologous sequence that encodes a T-Helper epitope. Application No. 10/547,207 Attorney Docket No. VB60033

- (Previously presented) A nucleic acid molecule as claimed in claim 1 that is a DNA molecule
- 10. (Previously presented) A plasmid comprising the DNA molecule of Claim 1.
- 11. (Previously presented) A pharmaceutical composition comprising a nucleic acid as claimed in claim 1 and a pharmaceutical acceptable excipient, diluent or carrier.
- (Previously presented) A pharmaceutical composition as claimed in claim 11 wherein the carrier is a microparticle.
- (Original) A pharmaceutical composition as claimed in claim 12 wherein the microparticle is gold.
- 14. (Previously presented) A pharmaceutical composition as claimed in claim 11 additionally comprising an adjuvant.
- 15. (Cancelled).
- 16. (Currently amended) A method <u>according to claim 17, wherein said_of treating or preventing MUC-1_expressing tumours comprising administering a medicament comprising a nucleic acid molecule is in a pharmacetical composition comprising a pharmacettically acceptable excipient, diluent or carrer as claimed in claim 1.</u>
- 17. (Currently amended) A method of treating or preventing MUC-1 over-expressing tumours in a mammal, comprising administering a safe and effective amount of a nucleic acid as claimed in claim 1 molecule encoding a MUC-1 protein that raises an immune response to MUC-1 in vivo, said immune response recognising a MUC-1 over-expressing tumour, wherein the non-repeat region of the nucleic acid molecule has a Relative Synonymous Codon Usage (RSCU) value of at least 0.6 and has a level of nucleotide identity of less than 85% in comparison with the non-repeat region of SEO ID NO:16, where

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said nucleic acid molecule is administered in an amount effective to raise an immune response to MUC-1.

- 18. (Previously presented) A medicament comprising a plasmid as claimed in claim 10.
- 19-20. (Cancelled).
- 21. (New) A method according to claim 17 wherein said nucleic acid molecule encodes a MUC-1 protein having fewer than 15 perfect repeat units.
- 22. (New) A method according to claim 17 wherein said nucleic acid molecule encodes a MUC-1 protein having no perfect repeat units.
- 23. (New) A method according to claim 17 wherein said nucleic acid molecule additionally comprises a heterologous sequence that encodes a T-Helper epitope.
- 24. (New) A method according to claim 16 wherein said pharmaceutical composition additionally comprises an adjuvant.
- 25. (New) A method according to claim 17 wherein said nucleic acid molecule is contained within a plasmid.
- (New) A method according to claim 17 wherein said nucleic acid molecule comprises a sequence selected from SEQ ID NO:13 and SEQ ID NO:14.